

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A method of killing a solid tumor greater than 1 mm in size in a human in need of such treatment, comprising the steps of:

(a) selecting an antibody that targets a specific binding site on a tumor cell[[s]] comprising the solid tumor;

(b) selecting an alpha particle-emitting isotope;

(c) selecting a high specific activity for an alpha particle-emitting isotope/antibody construct from about 0.1 mCi/mg to about 30 mCi/mg, said construct comprising said isotope conjugated to said antibody via a bifunctional chelant;

said selected specific activity sufficient for a pharmacologically effective dose of said construct to provide an amount of antibody to bind to a plurality of said targeted sites on the tumor cell[[s]] wherein a minimum of one atom of said alpha particle-emitting isotope comprising said construct delivers at least one alpha track to the tumor cell[[s]] upon binding of the antibody thereto;

(d) intravenously administering the dose of said high specific activity construct to said human, whereupon the size of the tumor is reduced; and

(e) repeating step (d) wherein each repetition further reduces the size of the tumor thereby killing the tumor.

Claim 2 (canceled).

Claim 3 (previously presented): The method of claim 1, wherein said alpha emitting isotope is bismuth-213, bismuth-212, actinium-225, radium-223, terbium-149, fermium-255 or astatine-211.

Claims 4-6 (canceled).

Claim 7 (previously presented): The method of claim 1, wherein said dose is from about 0.1 mg/m² to about 10 mg/m².

Claims 8-22 (canceled).